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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/629,746

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Leonid Bravinski

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EXAMINER

SAFAVI, MICHAEL

ART UNIT

PAPER NUMBER

3637

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/629,746	<b>Applicant(s)</b> BRAVINSKI, LEONID	
	<b>Examiner</b> Michael Safavi	<b>Art Unit</b> 3637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) See Continuation Sheet is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

Continuation of Disposition of Claims: Claims pending in the application are 2,3,5-8,12,13,15,16,25,29,34,35,69,72-83,91-94,99,100,102,104,105,107,114,115,122-126,128,131-136 and 143-159.

Continuation of Disposition of Claims: Claims rejected are 2,3,5-8,12,13,15,16,25,29,34,35,69,72-83,91-94,99,100,102,104,105,107,114,115,122-126,128,131-136 and 143-159.

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 29, 2009 has been entered.

***Specification***

The disclosure is objected to because of the following informalities: reference character '40' has been used to denote "connectors" as well as a "beam member".

Appropriate correction is required.

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The specification does not provide antecedent basis for "rib" or "rib member(s)" or "depression" as is variously recited throughout the claim language.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

**Claims 2, 3, 5-8, 12, 13, 15, 16, 25, 29, 34, 35, 69, 72-83, 91-94, 99, 100, 102, 104, 105, 107, 114, 115, 122-126, 128, 131-136 and 143-159 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.** The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification had not originally presented “reinforcement unit having one or more components all of which contribute only to supporting said form panel unit and no other form panel units of said plurality of said form panel units”, (claims 75 and 158). The specification had not originally presented “one-way ribbed composite floor” or “one-way rib members”, (claim 99). The specification had not originally presented “a panel member...having a shape providing a negative for at least a part of a shape of said slab”, (claim 128). The specification had not originally presented “reinforcement unit having one or more components all of which contribute only to supporting said form panel unit”, (claim 134). The specification had not originally presented “said reinforcement unit having a first portion and a second portion rigidly interconnected by means of a third portion” or “said form panel unit comprises a rigid structure” or “said first portion comprising a rigidly interconnected vertical section”, (claims 144, 148, 149, 150, 151, 155). The specification had not originally presented “wherein said third portion comprises a rod having a shape which provides rigidity to said panel member”, (claim 146).

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claims 128, 131-133, 157, and 158 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Claim 128, lines 6-7, it is not clear as to what is being defined by “a panel member...having a shape providing a negative for at least a part of a shape of said slab”. The specification does not appear clear as to any “negative for at least a part of a shape”.

Claim 157, “said first, second and third spaced structural support members” lacks antecedent basis within the claim. It is therefore, not clear as to what “said first, second and third spaced structural support members” refers.

Claim 158, line 6, it is not clear as to the relationship between the reinforcement unit and the panel member”. The language of line 6 does not set forth to what the reinforcement unit is transverse

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 2, 3, 15, 16, 25, 29, 34, 35, 69, 72, 75-83, 91, 92, 94, 99, 100, 102, 104, 105, 107, 114, 115, 122-126, 128, 131-136 and 143-159 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caine '090 in view of Carroll '641.**

As for **claims 91, 144, 25, and 29**, Caine '090 discloses, Figs. 1 and 5, a panel (D), reinforcement unit (B/d), and structural supporting member, (rib), (A) upon which reinforcement unit (B/d) is placed to support panel (D). The structural supporting member extends above the upper surface of the panel so that concrete can encase the supporting member, (**claim 72**). A plurality of reinforcements (B/d) are placed transversely above the panel with a portion, (upper surface thereof), above the upper surface of the panel with an extension portion resting on a surface of a transverse web of the support member (A), (**claims 2, 3, and 6**). Support portion comprises connecting member (d) positioned within the panel and connector (E) having cap (portion around or beneath E) which serves as or has an exposed surface. Panel member (D) is held in compression between the upper member (B) and the connector (E). Caine does not appear to specifically present a foam panel member within the assembly.

However, Carroll '641 teaches application of polystyrene panels 13 within a composite floor assembly to provide for insulation therein. Carroll teaches utilization of a prepared form panel comprising the foam panel 13 and formboard 12, col. 4, lines 13-14 of Carroll. Therefore, to have provided the Caine '090 floor assembly with polystyrene as the or part of the panels (D), (i.e., either provide a polystyrene panel with panel D of Caine so as to form a single form panel or replace panel D with a polystyrene panel), thus providing for insulation within the construction, would have been obvious to one

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having ordinary skill in the art at the time the invention was made as taught by Carroll '641.

**Claims 2, 3, 15, 16, 25, 29, 34, 35, 69, 72, 75-83, 91, 92, 94, 99, 100, 102, 104, 105, 107, 114, 115, 122-126, 128, 131-136 and 143-159 are rejected under 35 U.S.C. 103(a) as being unpatentable over McDonald '024 in view of Carroll '641.**

McDonald '024 discloses, Fig. 2, panel member 22, reinforcement unit 21/22q/22c having strengthening member 21c and structural supporting member, (rib), 20a, 20b. Upper surface of panel 22 can be seen, (Fig. 7), as possessing a longitudinally oriented downwardly extending portion as along 22k, 22m, 22n, 22p. Support portion comprises connecting member 22q positioned within the panel and connector 22c having cap 22e which serves as or has an exposed surface. McDonald does not appear to specifically present a foam panel member within the assembly.

However, Carroll '641 teaches application of polystyrene panels 13 within a composite floor assembly to provide for insulation therein. Carroll teaches utilization of a prepared form panel comprising the foam panel 13 and formboard 12, col. 4, lines 13-14 of Carroll. Therefore, to have provided the McDonald '024 floor assembly with polystyrene as the or part of the panels 22, (i.e., either provide a polystyrene panel with panel 22 of McDonald so as to form a single form panel or replace panel 22 with a polystyrene panel), thus providing for insulation within the construction, would have been obvious to one having ordinary skill in the art at the time the invention was made as taught by Carroll '641.



**Claims 69, 154 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caine '090 in view of Carroll '641 as applied to claims 72 and 153 and further in view of either of Martin '025 and Lathrop '723.**

Each of Martin '025 and Lathrop '723 teaches application of channel beam support members 1 within a composite floor assembly. Therefore, to have provided the modified Caine '090 floor assembly with channel beams as the support members in place of the members (A), thus utilizing an alternate support member within the construction, would have been obvious to one having ordinary skill in the art at the time the invention was made as taught by either of Martin '025 and Lathrop '723. Providing openings along an upper web portion of the resulting channel supporting member to allow for attachment to the tie or extension means, (including d'), of Caine '090, would have been obvious to one having ordinary skill in the art at the time the invention was made as taught by Lathrop '723 as in Figs. 1 and 5.

**Claims 15, 34, 35, 123, 124, 125; 82, 83; 132, and 133 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caine '090 in view of Carroll '641 as applied to claims 16, 76, 80, 91, 128, and 144 and further in view of Lin '111.**

Lin '111 discloses utilization of a foam roof panel component 3 having the upper and lower surfaces laminated with a polypropylene skin 1, 2. Therefore, to have provided the modified Caine '090 floor assembly polystyrene panels with the upper and lower surfaces laminated with a polypropylene skin, thus providing for a durable

covering for the structural foam, would have been obvious to one having ordinary skill in the art at the time the invention was made as taught by Lin '111.

**Claims 15, 34, 35, 123, 124, 125; 82, 83; 132, and 133 are rejected under 35 U.S.C. 103(a) as being unpatentable over McDonald '024 in view of Carroll '641 as applied to claims 16, 76, 80, 91, 128, and 144 and further in view of Lin '111.**

Lin '111 discloses utilization of a foam roof panel component 3 having the upper and lower surfaces laminated with a polypropylene skin 1, 2. Therefore, to have provided the modified McDonald '024 floor assembly polystyrene panels with the upper and lower surfaces laminated with a polypropylene skin, thus providing for a durable covering for the structural foam, would have been obvious to one having ordinary skill in the art at the time the invention was made as taught by Lin '111.

**Claim 69 is rejected under 35 U.S.C. 103(a) as being unpatentable over Caine '090 in view Carroll '641 as applied to claim 72 and further in view of either of Staresina et al. '278 and Bodnar '724.**

Each of Staresina et al. '278 and Bodnar '724 teaches providing apertures within the beam of a composite floor assembly to allow for bonding between the concrete and the beam. Therefore, to have provided the modified Caine '090 floor assembly with support beams having apertures within the web or flange portions thereof, thus allowing for bonding between the concrete and each respective beam, would have been obvious

to one having ordinary skill in the art at the time the invention was made as taught by either of Staresina et al. and Bodnar.

**Claim 69 is rejected under 35 U.S.C. 103(a) as being unpatentable over Caine '090 in view of Carroll '641 and either of Martin '025 and Lathrop '723 as applied to claims 69 and 154 above, and further in view of Staresina et al. '278 and Bodnar '724.**

Each of Staresina et al. '278 and Bodnar '724 teaches providing apertures within the beam of a composite floor assembly to allow for bonding between the concrete and the beam. Therefore, to have provided the modified Caine '090 floor assembly with support beams having apertures within the web or flange portions thereof, thus allowing for bonding between the concrete and each respective beam, would have been obvious to one having ordinary skill in the art at the time the invention was made as taught by either of Staresina et al. '278 and Bodnar.

**Claim 115 is rejected under 35 U.S.C. 103(a) as being unpatentable over McDonald '024 in view of Carroll '641 as applied to claim 92 and further in view of either of Staresina et al. '278 and Bodnar '724.**

Each of Staresina et al. '278 and Bodnar '724 teaches providing apertures within the beam of a composite floor assembly to allow for bonding between the concrete and the beam. Therefore, to have provided the McDonald '024 floor assembly with support beams having apertures within the web or flange portions thereof, thus allowing for

bonding between the concrete and each respective beam, would have been obvious to one having ordinary skill in the art at the time the invention was made as taught by either of Staesina et al. '278 and Bodnar.

**Claim 126 is rejected under 35 U.S.C. 103(a) as being unpatentable over Caine '090 in view of Carroll '641 and Lin '111 as applied to claim 124 and further in view of either of St. Clair '487 and Stern et al. '356.**

Each of St. Clair '487 and Stern et al. teach application of a polyethylene layer along at least one surface of a foam plastic panel, 24 on 22 of St. Clair and 12 on 17 of Stern et al. Therefore, to have provided the modified Caine '090 floor assembly polystyrene panels with the upper and lower surfaces laminated with a polypropylene skin, thus providing for a durable covering for the structural foam, would have been obvious to one having ordinary skill in the art at the time the invention was made as taught by Lin '111.

Claims 5, 7, 8, 12, 13, 73, 74, and 93 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

Applicant's arguments filed December 29, 2008 have been fully considered but they are not persuasive. Cain does disclose intermediate portions of a reinforcement

unit as at 'd' while McDonald discloses intermediate portions of a reinforcement unit as at 22q or 22c for example.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Safavi whose telephone number is (571) 272-7046. The examiner can normally be reached on Mon.-Fri., 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lanna Mai can be reached on (571) 272-6867. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Safavi/  
Primary Examiner, Art Unit 3637

M. Safavi  
April 18, 2009